Submission to the Productivity Commission inquiry: New Models for Tertiary Education

from the

Flexible Learning Association of New Zealand

This submission has been prepared by the Executive Committee of the Flexible Learning Association (FLANZ, formally, DEANZ) led by FLANZ President, Dr Sarah Stein. The Committee (see Appendix 1) wishes to thank the Productivity Commission for the opportunity to discuss the future of tertiary education in New Zealand.

The Committee has approached the submission through the context of the FLANZ constitutional objective, which is to foster high standards in the practice of open, flexible and distance learning. Significant challenges in preparing this submission include the breadth of the topic and the range of definitions of systems success.

Introduction and overview of this submission

Over the last decade the tertiary education system has experienced an increased rate of change. A system fit-for-purpose would therefore have characteristics of agility, autonomy, integrity and collaboration. This is a global trend, with organisations such as the European Commission using the higher education modernisation agenda to call for more autonomy, less fragmentation and stronger links between institutions and private partners (ESMU, 2010). In 2009, UNESCO experts identified the following approach as one of three global trends, while also warning of increasing challenges that are linked with Treaty obligations in Aotearoa New Zealand:

> *detailed governmental supervision is less effective and efficient than a combination of general target-setting, decentralization, and incentive-steering (followed by an expansion of evaluation and reporting activities ex-post steering). Partly, these policies are a response to the insight that the growing global interconnectedness of knowledge is bound to relativize national policies anyway.* (Teichler &Yağcı, 2009, p. 97)

This response to the Productivity Commission's issues paper *New models of tertiary education* (2016) from the Flexible Learning Association of New Zealand (FLANZ) addresses this trend, and identifies the role that flexible learning can play, accompanied by increased access to tertiary education through digital technologies as well as technology enhanced campus-based learning.

This submission is organised around four key areas, each of which is discussed within a separate section in the submission. Associated questions from the Commission's issues paper appear alongside each section. A summary of the areas and suggested ways forward are listed at the end of the submission.

1. Current architecture

New Zealand's current tertiary education architecture has been largely created by Government policy settings and direction. The competitive bid process, priority funding areas, student loans, and emphasis on programme completion have all contributed to a model of business that is – rightly or wrongly - experienced by tertiary providers (TEO) as constrained. For many, avoiding the consequences of not achieving investment plan targets, demands resourcing at the expense of capability development and innovation. Labelled the 'tyranny of the urgent', this focus on avoiding penalties measured by achievement against particular notions of success (student enrolments, programme completions) can have a whole-of-organisation negative impact on a TEO.

Whether intended or not, a consequence of the current tertiary education architecture in New Zealand is that institutions have focused on targeting goals of economic productivity. A result of this is that the teaching focus of TEOs may not directly address a growing rate of change that is needed in terms of future work roles and technology change. The ability to respond to change is underpinned by developing organisational capability and innovation, which, in turn, is reliant on an environment where continuity-of-business risk is controlled. Thus, whether intended or not, perceptions of constraint around government expectations and ways of demonstrating improvements and efficiencies have grown.

Inertia in the system

With regard to inertia within the system, momentum and control lies with the Government and its agencies, namely, the TEC and NZQA. Inertia manifests in the providers because of views that have developed that organisations lack control in changing direction. Constraints (related to, for example, goals of economic productivity) in one area, can stymie freedom to change in another area. When bodies external to an institution are viewed as holding control, and consequential processes enacted within and across institutions related to demonstrating accountabilities are experienced as compliance activities that seem to have little or no relation to education, then the response from individuals and groups can be one of inertia and negativity.

If given more (or different kinds of) autonomy, tertiary providers are likely to define their value proposition more clearly and seek higher returns through defined quality offers pitched at specific or global markets. With autonomy and the resultant flexibility, TEOs are more likely to seek

Q22 Is the current architecture a good fit for a tertiary education system? What are its advantages and disadvantages? Are there good alternatives?

Q24. How do other instruments (e.g., funding mechanisms, letters of expectation, budget initiatives) influence government agencies' behaviour? How do these align with the TES instrument?

Q30 What are the best measures to determine whether the tertiary education system is working well?

Q47 What trends are likely to be most influential for the tertiary education system over the next 20 years?

Q59 Do you agree that there is "considerable inertia" in the tertiary education system?

partnerships that enhance reputation; including industry partnerships that support high value outcomes for graduates, and community partnerships that support reliable enrolment streams.

Alternative models

This Association has undertaken research into future scenarios of tertiary education, called the DEANZ2016 scenario set (see Davis & Higgins (2015) for more detail). The scenario set conceptualises two trends:

1. moving from a focus on the academy towards a focus on employers, Iwi etc.; and
2. the move to learning and resources that are more customised to students' needs.

There is some evidence that TEOs are evolving aspects of all four scenarios, including the innovative *Quality Branded Consortia* and opportunities for student own *Self Determination*. However, although such innovations are scattered among New Zealand TEOs, they appear to be few in number. Global leadership in the OERu federation has not yet been capitalised upon (Mackintosh, Personal Communication; Davis & Mackintosh, 2013) despite potential advantages of scale and advantages for students who find access to tertiary education a major economic challenge. This may be because TEOs find such collaboration may risk their reputations given lack of policy development in relation to open education practices in the NZ tertiary sector.

It is likely that the current centrally defined system restricts collaborative negotiation; for organisation, for region, for New Zealand. A focus on productivity rather than growth as a target is likely to be best led by sector-agreed principles including the capacity to contribute to sector-wide capability, development and innovation (see for example arguments in a UNESCO report on higher education (Meek, Teichner & Kearney, 2009).

In coming years, the tertiary education sector must continue to innovate using technology and prepare students for unknown roles, both during their study time and after graduation. Digital technologies, and in particular communication technologies, play an increasingly important role in student success as awareness of the distance between student, and knowledge expert and resources grows. Face-to-face and hands-on learning experiences combined with distance learning experiences focussed on upskilling within ongoing employment will attract a premium status due to the efficiency of the workplace blended model, in terms of lower cost to the taxpayer and high levels of job outcome. Learning models

that align learner skills with workplace needs, (including living in other cultures), and digital competencies, will increase in perceived and actual value (JISC, 2015).

There are many NZ programmes that are closely linked with the profession they serve. Some of these are innovative and increasingly adopt a blended approach in which technology enhanced learning can enable increased place-based learning and student agency to improve education and employment outcomes. An example is the University of Canterbury's exemplary Masters programme for initial teacher education that is preparing school teachers particularly well to address the needs "priority learners" in collaboration with schools in Christchurch (Astall et al., 2016). However, it should be noted that such exemplary programmes building on research evidence are rare because they are expensive, and for the same reason they are inequitable in access because many students cannot afford the intensive study that precludes even part time work. However, there are other programmes that are directly linked to professions, through specially designed programmes for professionals who are in full time work and needing to specialise or to upskill; examples being, the distance learning postgraduate programmes provided by the University of Otago (such as the Aviation Medicine programme and the Postgraduate Programmes in Women's Health.)

Learner outcomes and learner feedback (including that enabled through social media) have become part of decision-making by prospective learners, and these can also influence student retention (Ayebi-Arthur et al., 2016). Decision-making by students is increasingly complex as information becomes more profuse and consequences of poor decisions more serious (HEFCE, 2014). Pathway planning and learner maturity will be increasingly important considerations when choosing programme, mode and level of financial commitment.

It will be important to refine a more inclusive notion of "productivity" beyond reductionist measures of dollars and student numbers linked with employment. As others have noted, "Knowledge must be socially inclusive, and oriented towards the social development priorities of both the state and the family of nations" (Kearney, 2009, p. 8). This bi-cultural nation appreciates the challenges better than most. The goal of TEOs to demonstrate high quality relevant learning outcomes within this changing, complex environment is a challenge for the nation, as well as for funding agencies and the TEOs themselves.

2. Industry and student needs

Workplace requirements have changed over the last decade. Accountability and compliance requirements have increased. The rate of change in required skills has increased. The importance of digital literacy and communication skills has increased. We live in an increasingly changeable and connected world. In response, industry is seeking workers that the workplace can develop over time. Examples include youth workers in training schemes, qualified workers with an interest in ongoing learning, and those in professions who continually need to upskill and to demonstrate competencies.

Industry needs

Attributes such as reliability and initiative, coupled with the ability to communicate, collaborate and problem-solve (soft skills) often precede specific task-related skills (hard skills) in role descriptions. This can be seen to sit in contrast with an education model in which current quality assurance models have the tendency to constrain the reflection of soft skills in learning outcomes.

Without ignoring the need for hard skills, institutions are recognising that the learning environment can influence the uptake of soft skills. Learning analytics, for example, are being used to provide insights into behavioural/study patterns of students with a view to supporting the learning and development of students through teaching approaches that are responsive to particular needs.

Graduate profiles are increasingly being used to articulate soft skill outcomes for students. From a positive perspective, students become better able to identify and be explicit about their own skill development. From a perhaps more negative perspective, those same outcomes and graduate profiles but can be seen by employers as a simple marketing technique used by institutions, especially if their experience of graduates does not match the institution's rhetoric. When focus is on educating students purely for the purposes of releasing them to the job market, with very narrow emphasis on one type of workplace or job, there is high risk for an institution's reputation. Institutions are seeking opportunities to match their students with workplace outcomes before graduation, but this is not a direct and predictable pathway in terms of inputs resulting in standard, predictable outputs tailored to specific workplaces and jobs. Institutions aim not only to improve students' learning outcomes including

Q2. Do prospective students have good enough information to enable them to make informed choices about providers and courses? What additional information should be provided? Who should provide it?

Q17. Are there practical ways to encourage employers to have greater or more productive involvement in the tertiary education system?

Q32. To what extent are graduates meeting employers' expectations with respect to hard or technical skills? What about soft skills and capabilities?

Q33. What are the significant trends in employer demand for tertiary-educated employees, and in student demand for tertiary education? How is the system responding?

Q54. What measures have been successful

their employability, but also to enhance the institution's reputation as a producer of employable graduates.

Industry involvement

Framing education as a collaborative activity with productivity gains as the goal, will gain traction with industry. Supporting commitment to a workplace while providing flexibility to transfer training or workplaces is important, as is recognising that such a commitment requires support for both learner *and* workplace.

Models that could potentially exhibit characteristics of commitment, flexibility and support are: the ITO apprentice model (predominantly for learning to learn and practiced learners); and distance or blended learning (predominantly for practiced learners, although possible for any learner of any experience through tailored course design, infrastructure and support mechanisms, and appropriate teaching and learning approaches and support). Models that blend work and study also have potential for distance or blended learning initiatives. As technology enables these models, industry and education should be encouraged to partner in providing opportunities for students to demonstrate appropriate learning outcomes. In those partnerships *both* parties should be rewarded equitably.

Industry is now seeking assurance that graduates have 'future-focussed' attributes (such as, communication, digital, and collaboration competencies), as well as specific skills and knowledge aligned with employers' needs. Going forward, institutions will be required to manage their reputation actively and partner with industry to provide this assurance. In addition, by placing increased relevance on soft skills the concern for current skills becoming obsolete is mitigated. Increasing the relevance of soft skills will also have the effect of future-proofing against needing unknown skills in the future.

We would argue that balancing work and study over longer periods is more effective preparation for many jobs and for learning in general because of the relevance and authenticity of the learning this can bring, and the direct application to practice (see for example, Bransford & Darling Hammond (2001) for an example from teacher education, and Higgs, Sheehan, Currens, Letts & Jensen (2013) for a range of examples from a variety of discipline environments and workplace contexts). This general approach, while having multiple benefits, including developing soft skills, keeping pace with change, promoting life-long upskilling, assuring

in improving access, participation, achievement and outcomes for those with limited access to traditional campus-based provision? What measures have been less successful? Why?

employment outcomes, and enhancing TEO reputation, is currently discouraged by a number of policies.

Student information provision

Study can be viewed as a high-risk investment for students in the current system. For youth entering full time, multi-year courses, the investment is expensive, 'one shot', and is based on realising an abstract future benefit. In the past, for many students, this benefit was assured. Today, the value of a degree has been eroded by the massification of education and consequential high levels of degree attainment in our population (Earle, 2010).

Providing information on average salaries for job type, or graduate success based on programme completion – once again, as examples of reductionist ways of indicating 'success' - is increasingly misleading as work roles become fluid over people's careers and drivers such as innovative approaches and flexibility begin to mainstream. While information about jobs, careers, salaries and workplaces is useful, it is the way this type of information is used and promoted that can add to views about what is important and valued about education and what is seen as "productivity" and "success".

Information focusing on pathways and approaches that include flexibility, staged education, a work/education balance and goals that recognise the values of soft skills mitigate much of the risk for students. Peer-generated information is a growing addition to information collected when making decisions about what and where to study. Providing support for managed peer-to-peer feedback will not only provide information, but will reduce the current existing risk of poor information from unregulated channels (Springett et al., 2012).

Information on cost management and fiscal responsibility is often written for a mature audience. Information about alternative approaches, provided with target audiences in mind, for example, year 10 to 13 secondary school students, will increase the maturity of approach to taking on debt for education.

Matching government policy settings with rhetoric that supports conservative approaches to taking on debt is likely to reduce the debt carried by the next generation of learners. Policy settings for example, that support long-term study objectives and part time study while working will enhance decision-making as well as reduce debt carried by learners. This

can be especially true for those students who are already in work who cannot realistically study more than one course at a time. Current policy settings which restrict students from attaining loans for just one paper or course, effectively cause students to enrol in more courses than they have time for just to get financial support. This typically results in poor completions which is a negative outcome for both learner and institution.

In other words, taking action to acknowledge and address perceptions and conceptions of what is valued about education and learning, what success is, and the many possibilities for learning and development that can exist alongside more traditional approaches to study will tackle the more fundamental challenge of changing the way tertiary education is understood by learners and wider community, institutions and employers. Links between education and workplace productivity are currently tenuous because of the TEC focus on funding those entering the workplace rather than those already in it.

FLANZ research into e-learning in e-learning clusters of schools provides evidence of the value of collaboration between institutions, as well as the importance of engaging with rural and remote communities (Barbour, Davis & Wenmoth, 2016). There are also a number of STAR programmes that reach students in rural and remote communities and that it may be valuable to expand.

Supporting student participation

Distance learning can be challenging even for practiced learners. Using digital communication technologies to support learners studying away from campus has improved success rates. However, high quality pre-enrolment advice and clear pathways to incremental achievement remain key factors in keeping distance students motivated to complete. Here again the financial support to study one course at a time and succeed, rather than enrol in more than one course and struggle will improve student motivation.

Distance learning is not a new phenomenon; it existed long before the introduction of digital technologies. Principles that underpin effective teaching become even more critical in distance learning settings, however. As is often assumed, it is *not* an easy form of teaching and learning - 'the easy way out' - *nor* is it 'second class' or less valuable than the more traditional forms of face to face teaching and learning.

Recognising and supporting the part time distance study pathway at policy level would have a significant positive impact on the level of uptake and success rates. Success is currently measured on institution and government agency terms. If measured on individual or societal terms, the success of distance students would be greater.

Institution business models that focus on completion can lead to the distance student being viewed as 'high risk'. Therefore, institutions have managed part time and distance student numbers down in response to investment plan completion targets. For example, Massey University has reduced its extramural student numbers by 3,500 students over the 2009 to 2015 period (Massey University 2015 Annual Report), and data supplied to FLANZ by the Ministry of Education in May this year show a steady drop in extramural enrolments in both student numbers and EFTs from 2009 through to 2014 (Ministry of Education, 2016).

But what does this say about the value placed on distance learning as a mode of education? We would argue that institutional "success" measured in terms of completions (whole programmes) is an over-simplistic way to gauge success, and completion numbers do not provide a reliable and full indication of the benefit felt by individual learners and their communities (workplaces, for example). Increasing the ability for institutions to transfer and support learners who wish to change focus is likely to have a positive impact on the number of students who work in the industry they trained for, as well as an institution's completion rates. Recasting the place of education as primarily serving the needs of the learner, rather than the survival needs of the institution might go some way to creating a situation where flexibility and choice exist, and more importantly, are perceived to exist.

Increasing flexibility and choice for learners is the most likely measure to increase participation by learners with compromised access to campus-based learning opportunities. Key drivers of increased education uptake for this group are support for the use of Web3.0 communication technologies and policy settings that demonstrably support part time and long term study choices.

3. Technology in learning and teaching

Digital technologies are having a marked and sustained effect on the nature and processes of tertiary education. Information has become commodified and can be purchased or found. Institutions have responded by clarifying the value of a 21st century education in terms of providing the trusted curation of information and stewardship of the learner and their environment. Teaching and learning increasingly involves digital technologies as the basis for communication, the source of tools for creation of, and involvement in, learning activities, and as a source of data involved in quality enhancement, renewal, monitoring and review.

Effective learning and teaching

Effective teaching is dependent on a range of factors including the learning environment, support structures, and peer and community engagement. When considering the more specific inquiry into teaching practice, the abundance of information about different ways of teaching and learning can be confusing, and therefore become a constraint for many (prospective and current) students and teachers, rather than an advantage. It has been argued that authentic learning experiences - especially those that are closely linked to workplaces, actual practice and application - are more able to promote and support the development of 'work ready' graduates (Martin, Rees & Edwards, 2011) or, more broadly, contribute to the development of employability skills and capacities (Higgs, et al, 2013; Vaughan, Bonne & Eyre, 2015).

Effective learning and teaching practice continues to be well-discussed at all levels of formal education. However, there are certain characteristics of good teaching practice and high quality learning environments that can be highlighted (see, for example, Chan, 2012, 2013; Kane, Sandretto & Heath, 2004; Vaughan et al., 2015):

- the learner is clear about expectations, requirements and pathways to achievement
- learners develop skills to distinguish between what information is necessary and what is supporting, and to critique the quality, importance and relevance of information
- learners develop ability to independently assess their own progress and performance
- the importance, place and need for collaboration to achieve outcomes is nurtured and the skills, including peer to peer

Q14. What evidence is there about what makes for effective teaching in a tertiary environment? Is it different for different types of learning or student? How can teaching effectiveness be best measured and improved?

Q35. What are the implications of new technologies that are predicted to make many currently valuable skills obsolete? Will this change the role of the tertiary education system?

Q42. What specific technologies should the inquiry investigate? Why?

Q43. What parts of the tertiary education system are challenged by ongoing technological change? What parts can exploit the opportunities created?

communication and working with others in a variety of contexts are developed
- learning contexts that are authentic and relevant for the learner, for the subject/discipline/skills area and for application in the workplace and work environment
- inquiry based problem solving and information transfer fostering critique and ability to make judgements and decisions that are reasoned and well-founded
- highly accessible and flexible course material, teaching and learning experiences. Nichols' (2016 In press) review of the literature "largely confirms that there is no significant difference to learner comprehension across reading from print and on screen. Those studies that find significant difference cite overconfidence and additional cognitive load as being responsible, both of which can be addressed through a deliberate approach to educational design."
- an understanding by the teacher/provider of individual learner pathways and challenges faced by each learner in real time.

While these characteristics are similar to effective teaching practice a generation ago, with the widespread incorporation of digital technologies, the application of these characteristics presents ever-evolving developments and demands in teacher and learner skill. The added pressure for operating in a blended or distance context focusses the need for developing particular skills in working together and interacting/communicating, in often new and different course design and implementation strategies and approaches, including assessment regimes. And underpinning all of this is the central importance of ICT infrastructure.

Whatever the learning and teaching context, digital technologies are having an impact on the way teaching and learning happens. Using these technologies for social purposes is different from using the digital technologies for academic and work purposes. For both students and teaching staff, there is a significant challenge dealing with technologies.

New technologies in learning and teaching

Anderson and Simpson (2012) identify the heritage elements of distance education have become part all tertiary education today. Technologies that support communication, collaboration, and understanding student behaviour will be central to education technology investment in the tertiary sector. These include:

- technologies that accommodate the growing awareness of the distance between learner, teacher/institution and workplace environments
- technologies that increase the accessibility of learning materials

- technologies that increase the flexibility of study for learners
- technologies that provide teachers/institutions and workplaces with insights into learner behaviour at a macro and micro level

Using technology to support learning and teaching

Centrally funded initiatives that support integration of systems will allow for a greater role of sector data and a less constrained investment planning approach. For example, investment in the integration of systems to automate processes and provide across sector analytics would be beneficial to the sector. New Zealand's tertiary sector is relatively small. Infrastructure investment is a significant constraint.

Managing the cost and capability development required to keep pace with the continual rapid evolution of ICT systems presents a particular problem for all TEOs. Services such as the REANNZ network and the Mahara ePortfolio supported by Ako Aotearoa and Catalyst, provide some relief. Central support for a shared student management system or learning management system may offer solutions for smaller enterprises.

An area of particular concern is the trades teaching that is dependent on computer-based technologies and computer-driven equipment. Significant developments in engineering equipment, for example, are challenging for TEOs to obtain and update. To some extent, this can be achieved by closer industry links but there remains some requirement for providers to have unfettered access to expensive equipment and software. Often this cost is exacerbated by the requirement for suitable space for the equipment.

Professional development

FLANZ and Ako Aotearoa have collaborated with TEOs to provide professional development with some support from the Ministry of Education. Notable projects and resources include The *ePrimer* series led by past FLANZ president, Dr Mark Nichols, which are substantial, well-referenced introductions to the theory and practice of eLearning (including, *e-Learning in Context*, *e-Education and Faculty, Designing for eLearning*, and *Online Discourse*).

4. Innovation in the tertiary education sector

Business models across tertiary providers are inherently reactive and often inflexible outside of the achievement of investment plan targets. The consequence of the business operating environment imposed by government agencies is a reduced appetite for new or different ways of doing things; a dampening on innovation.

There are examples of fast reaction to rapid changes in conditions, such as the seismic events in Canterbury. All the TEOs responded rapidly and increased innovation with e-learning including social media, has added to the resilience of tertiary education (Ayebi-Arthur, 2016; Mackey et al, 2012).

Barriers to innovation

The framework for TEO business planning revolves around the agreement of student targets and student achievement, which, in turn, effectively defines the funding. Success is measured against student enrolment targets and student completions, with significant long-term penalties for non-achievement.

Institutions are assessed, at their cost, in high stakes single-event processes that are required to maintain their status. The high stakes of delivering on the student outcome-focussed investment plan and maintaining their status in assurance rankings drives a risk management approach that prioritises resources to student enrolment and completions, and compliance.

Within organisations tutors asked to be innovative are conflicted with the need to deliver student outcomes. Messaging within organisations is often confused and reactive. Testing and trialling different teaching approaches poses a risk and with the consequences of failure so high that individuals and organisations are resistant to an innovative approach.

For example, the costs associated with rolling out an 'overhaul of courses' are significant. These resources are currently captured by the critical risk of being penalized for failing to meet enrolment and completion targets. Managers are unwilling to invest in change because the consequence of not achieving investment targets are so great. Such decisions are made in the face of evidence that a course overhaul would be of benefit in subsequent years.

Q59. How innovative do you consider the New Zealand tertiary education system is?

Q61. What are the benefits to innovators in the tertiary education system? What challenges do they face in capturing these benefits?

Q62. What are the barriers to innovation in the tertiary education system? What might happen if those barriers are lowered?

Q68. What impact has Performance-Linked Funding had on providers' incentives to innovate?

Q72. Do New Zealand's tertiary policy and regulatory frameworks enable or hinder innovation? What might happen if existing constraints are loosened?

Q78. What incentives do government education agencies have to innovate in the way they carry

Beyond the innovation barriers

Reducing the emphasis on the investment plan as a regulatory document, removing penalties related to annual 'wash up' of student numbers and increasing the autonomy of providers will increase the risk appetite of the sector. The result is likely to be business plans that seek advantage in specialist areas, collaborations that seek to enhance reputations and pockets of enterprise aligned with specific identified industry needs.

out their functions, both within and across agencies? What constraints do they face?

Summary and ways forward

Competitive funding drives margins lower and, while this may be seen as efficient, the consequences could equally be compromised student support and increasing cost of quality assurance (Liefner, 2003). It has been shown that funding awards based on development plans rather than performance will have more equity (Tadjudin, 2007).

There is a tenuous connection between growing numbers of graduates and productivity. In part, this can be explained by policy settings that prioritise full time youth students and produce graduates that often have no previous connection with the industry workplaces they will be going to. To produce dividends of productivity from education investment, policy must support greater integration of industry with education.

- Invest in, rather than fund education: Invest in collaborative infrastructure such as data sharing, common platforms and support.
- Move from central control to sector control. Support increased collaboration with Iwi/community/industry and between TEOs.
- Value vocational, distance, part time and lifelong learning: measure outcomes over longer periods and using rubrics generated and agreed with the sector(s).
- Recognise the increasing potential of workplace learning/training through flexible e-learning
- Support workplace based and part time students to study at a pace that suits them by removing minimum course requirements for financial support.
- Recognise and support diversity within clear high-level frameworks; including allowing a proportion of NZ Qualifications to be defined by institutions through collaboration with Iwi/ community/ employers.
- Support systems that provide for movement of students between providers. Competitive funding encourages behaviour that seeks to retain students regardless of the fit with students' profiles that can change over time.
- Accept some national responsibility for risk in the sector. For example, replace the EFT target achievement with less punitive measures of funding management that better enable TEOs to adapt to contracting markets.

Q8. How does competition for student enrolments influence provider behaviour?

Q29. What factors best explain the discrepancy between growing levels of tertiary education attainment without a significant productivity dividend?

Q 39. What impact has the pattern of government spending on tertiary education had on the tertiary education provided?

- Reduce bureaucracy: consider funding as investment, invest in organisations' development plans, and reduce the number of applications required (e.g. by increase duration of funding).
- Reduce the resources needed to assure quality. Introduce pathways that support TEOs to continuously provide quality provision, rather than penalise for shortcomings.
- Develop policy in relation to open education practices in the NZ tertiary sector.

References

Anderson, B., & Simpson, M. (2012). History and heritage in open, flexible, and distance education. *Journal of Open, Flexible and Distance Learning*, *16*(2), 1–10.

Astall, C., Abbiss, J., Cunningham, U., Clarke T.H., Davis, N.E,. et al. (2016). Shifting practice in teacher preparation with a poutama and an ePortfolio: Charting our journey. In N. Wright (Ed.), *DEANZ2016 Conference Proceedings* (pp. 15-20). Retrieved from http://conference.deanz.org.nz/wp-content/uploads/2016/03/DEANZ16-Conference-proceedings11-April.pdf

Ayebi-Arthur, K. (2016). *Resilience, e-learning and change in tertiary education.* Unpublished PhD. University of Canterbury.

Ayebi-Arthur, K., Dabner, N., Tull, S., Davis, N. & Cunningham, U. (2016). Growing resilience with social media and e-learning: The case of the University of Canterbury. In N. Wright (Ed.), DEANZ 2016 conference Proceedings (pp. 21-25). Retrieved from http://conference.deanz.org.nz/wp-content/uploads/2016/03/DEANZ16-Conference-proceedings11-April.pdf

Barbour, M., Davis, N.E. & Wenmoth, D. (2016). Primary and secondary virtual learning in New Zealand: Examining the process of achieving maturity. *International Journal on E-Learning, 15*(1), 27-45.

Chan, S. (2012). Perspectives of new trades tutors: Boundary crossing between vocational identities. *Asia-Pacific Journal of Teacher Education, 40*(4), 409-421, DOI: 10.1080/1359866X.2012.724656.

Chan, S. (2013). Learning through apprenticeship: Belonging to a workplace, becoming and being. *Vocations and Learning, 6*, 367–383, DOI:10.1007/s12186-013-9100-x.

Chatterton, P & Rebbeck, G. (Nov. 2015). *Technology for employability*. Retrieved from http://repository.jisc.ac.uk/6252/4/Technology_for_employability_-_quick_read_report.PDF

Davis, N.E. & Mackintosh, W. (2013). A mOOC prepared to make a difference. *DEANZ Magazine* Nov: 1-7. Retrieved from http://www.deanz.org.nz/home/images/newsletters/nov13%202.pdf.

Davis, N.E., & Higgins, A. (2015). Researching possible futures to guide leaders towards more effective tertiary education. *Journal of Open Flexible and Distance Learning, 19*(2), 8-24. http://journals.akoaotearoa.ac.nz/index.php/JOFDL/article/view/242

Earle, D. (2010). *How can tertiary education deliver better value to the economy?* Retrieved from https://www.educationcounts.govt.nz/publications/80898/how-can-tertiary-education-deliver-better-value-to-the-economy/new-zealands-tertiary-education-and-skill-attainment

European Centre for Strategic Management of Universities (ESMU). (2010). *Funding higher education: A view across Europe.* Retrieved from https://www.utwente.nl/bms/cheps/publications/Publications%202010/MODERN_Funding_Report.pdf .

Higgs, J., Sheehan, D., Currens, J. B., Letts, W., & Jensen, G. M. (Eds.) (2013). *Realising exemplary practice-based education.* Rotterdam: Sense Publishers.

Higher Education Funding Council for England (HEFCE). (2014). *UK Review of the provision of information to students about HE*. Retrieved from http://www.hefce.ac.uk/media/hefce/content/pubs/indirreports/2014/Provision,of,information,advisory,study,and,literature,review/2014_infoadvisory.pdf .

Kane, R., Sandretto, S., & Heath, C. (2004). An investigation into excellent tertiary teaching: Emphasising reflective practice. *Higher Education, 47*, 283-310.

Kearney, M. (2009). Higher education, research and innovation: Charting the course of the changing dynamics of the knowledge society. In Meek, V. L., Teichler, U. & Kearney, M. (Eds.). *Higher education, research and innovation: Changing dynamics.* Report on the UNESCO Forum on Higher Education, Research and Knowledge 2001-2009. (pp. 7-23). Kassel: International Centre for Higher Education Research Kassel (INCHER-Kassel). Retrieved from http://www.uni-kassel.de/incher/v_pub/UNESCO_RR_09.pdf.

Liefner, I. (2003). Funding, resource allocation and performance in HE systems. *Higher Education*, *46*(4), 469.

Mackey, J., Gilmore, F., Dabner, N., Breeze, D. & Buckley, P. (2012). Blended learning for academic resilience in times of disaster or crisis. *Journal of Online Learning and Teaching, 8*(2), 122-135.

Martin, A., Rees, M., Edwards, M. (2011). Work integrated learning: A template for good practice. Wellington: Ako Aotearoa.

Massey University. (2015). *Massey University 2015 Annual Report*. Retrieved from https://www.massey.ac.nz/massey/fms/About%20Massey/University-Management/documents/2015-Annual-Report-web.pdf?463A312C7F905448FAFF0C0E761FF120.

Meek, V. L., Teichler, U. & Kearney, M. (Eds.). *Higher education, research and innovation: Changing dynamics.* Report on the UNESCO Forum on Higher Education, Research and Knowledge 2001-2009. (pp. 85-146). Kassel: International Centre for Higher Education Research Kassel (INCHER-Kassel) Retrieved from http://www.uni-kassel.de/incher/v_pub/UNESCO_RR_09.pdf.

Ministry of Education. (2016). *Domestic students by attendance status*. [Data file]. Wellington: Ministry of Education.

Ministry of Education. (2008). John Clayton - U*sing e-learning to build workforce capability: A review of activities*. Retrieved from http://www.educationcounts.govt.nz/publications/e-Learning/58148.

Springett, R., Kirk, M., & Dodd, A. (2012). *The Review It survey*. Review It: Ako Aotearoa project.

Tadjudin, M. (2007). Competitive funding as a tool for improving higher education management. UNESCO. Retrieved from http://portal.unesco.org/education/en/files/53952/11864784495M_K_Tadjudin.pdf/M_K_Tadjudin.pdf.

Teichler, U. & Yağcı, Y. (2009). Changing challenges of academic work: Concepts and observations. In Meek, V. L., Teichler, U. & Kearney, M. (Eds.). *Higher education, research and innovation: Changing dynamics.* Report on the UNESCO Forum on Higher Education, Research and Knowledge 2001-2009. (pp. 85-146). Kassel: International Centre for Higher Education Research Kassel (INCHER-Kassel) Retrieved from http://www.uni-kassel.de/incher/v_pub/UNESCO_RR_09.pdf.

Vaughan, K. (2012). *The integration of work and learning in New Zealand: A working paper*. Wellington: NZCER. Retrieved from http://www.nzcer.org.nz/system/files/Integration%20of%20Work%20and%20Learning%20in%20NZ.pdf

Vaughan, K., Bonne, L. & Eyre. J. (2015). *Knowing practice: Vocational thresholds for GPs, carpenters, and engineering technicians.* Summary and full Reports. Wellington: New Zealand Council for Educational Research and Ako Aotearoa. Retrieved from www.akoaotearoa/knowing-practice).

Appendix 1. Members of the FLANZ Executive

Position	Name	Institution
President	Dr Sarah Stein	University of Otago
Vice President	Derek Wenmoth	CORE Education
Secretary	Dr Keryn Pratt	University of Otago
Treasurer	Rachel Whalley	VLN Primary School
Executive Members	Professor Niki Davis	University of Canterbury
	Dr Kathryn Mac Callum	Eastern Institute of Technology
	John Delany	Ara Institute of Canterbury
	Peter Guiney	Ministry of Education
	Dr Maggie Hartnett	Massey University
	Dr Elaine Khoo	University of Waikato
	Terry Neal	Flexible Learning Consultant
	Rick Whalley	CORE Education
	Terry McPherson	Massey University
	Belinda Lawrence	Open Polytechnic
	Te Hurunui Clarke	University of Canterbury
	Ralph Springett	Massey University